REMARKS

The abstract and specification have been amended in order to correct grammatical and idiomatic errors contained therein. No new matter has been added.

The claims have been amended in order to more particularly point out and distinctly claim the subject matter which Applicants regard as the invention and respond to the Examiner's rejection under 35 USC 112. Originally presented Claims 1-6 have been canceled and replaced by newly presented Claims 19-24. Newly presented Claim 19 contains the subject matter of Claim 1 with the additional limitation that the alloy contains from 1.5 to 2.5 wt.% tin. Support for this amendment can be found in paragraph [0036] in the present specification.

Claims 1-6 have been rejected under 35 USC 103(a) as being unpatentable over JP '246 or JP '684. Applicants respectfully traverse this ground of rejection and urge reconsideration in light of the following comments.

The presently claimed invention is directed to a copper alloy consisting of, in weight percent, 60-70% copper, 1.5-2.5% tin, 0.01-0.5% iron and/or cobalt, 0.01-0.5% nickel, 0.01-0.5% manganese and/or silicon, up to 3% magnesium, up to 0.2% phosphorus, each of silver, aluminum, arsenic, antimony, titanium and zirconium in an amount of up to 0.5% and the remainder being zinc and unavoidable impurities.

The object of the present invention is to provide a copper, tin and zinc-based alloy which is distinguished by the absence of toxic elements, a good machining property, a good workability, a high corrosion resistance, an increased strength level accompanied with an equally high ductility as compared to lead-containing machinable brass, a capability for mass production in a mill for partially finished products and a robust manufacture. In order for the alloy of the present invention to have all of the above-stated properties, it is

necessary for all of the components to be present in the claimed amounts.

Due to the properties of the alloys of the present invention, they are suitable for use in the fields of electrical engineering as contact materials such as clamping joints and plug connectors, fastening elements such as clamping joints and as components or containers for the transport or the storage of liquids. The alloys of the present invention can be recycled and do not present ecological and toxic problems with respect to their use and disposal. It is respectfully submitted that the presently claimed invention clearly is patentably distinguishable over the prior art cited by the Examiner.

JP '246 has a broad generic disclosure regarding a copper alloy which can contain up to 10% tin, up to 40% zinc, up to 10% nickel, up to 3% iron, up to 1% chromium, up to 1% manganese, up to 0.5% phosphorus, up to 1% silicon, up to 1% magnesium, up to 0.5% zirconium, up to 1% titanium, up to 1% cobalt, up to 1% silver, up to 5% aluminum, up to 0.5% boron, and up to 0.5% rare earth metals. There is no disclosure of a specific alloy in this reference which falls within the scope of the present claims or even presents a showing of prima facie obviousness with respect to the present claims. Additionally, the alloy of JP '246, as disclosed in the abstract, is too broad in general to even make a showing of prima facie obviousness under 35 USC 103(a). The only metal specifically required is copper. As such, the presently claimed invention clearly is patentably distinguishable over this reference.

JP '684 discloses copper alloy connectors used in electric and electronic apparatuses. The copper alloys contain zinc in an amount that is greater than 3 but less than 3.5%, 0.1-3% nickel, 0.02-1% silicon, 0.01-0.9% tin, 0.007-0.25% iron, 0.001-0.2% phosphorus, 0.001-0.2% magnesium and/or 0.001-0.05% calcium and, optionally, lead in an amount of from 0.001-0.1%. The presently claimed invention is patentably

distinguishable over this reference in that the upper content of tin is 0.9 wt.% while in the present invention, tin is required to be present in an amount of from 1.5-2.5 wt.%. Therefore, like the previously discussed reference, JP '684 does not even present a showing of prima facie obviousness under 35 USC 103(a) with respect to the presently claimed invention.

The Examiner is respectfully requested to reconsider the present application and to pass it to issue.

Respectfully submitted,

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Encl: Replacement Abstract
Clean Substitute Specification
Marked-Up Substitute Specification
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